

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-6 (Cancelled)

7. (Currently Amended) A method comprising:

- (a) reading a first stream of image pixels corresponding to an image X_K from an image buffer;
- (b) reading a second stream of pixels corresponding to an image A_K from an accumulation buffer;
- (c) blending each image pixel of the image X_K with the corresponding accumulation buffer pixel of the image A_K based on an alpha value provided with the image pixel, and thus, generating a third stream of output pixels defining an image A_{K+1}; and
- (d) transferring the third stream of output pixels to the accumulation buffer;
- (e) performing (a), (b), (c) and (d) for each image in a sequence of images X_K, K=0, 1, 2, ..., N-1, wherein N is the number of images in the sequence.

8. (Original) The method of claim 7, wherein the accumulation buffer color depth precision is larger than the image buffer color depth precision.

9. (Currently Amended) The method of claim 8 [[7]], wherein said blending comprises blending red, green and blue components of each output pixel in parallel.

10. (Currently Amended) The method of claim 7, wherein (a), (b), (c), (d) and (e) and (d) are performed by a graphics hardware accelerator chip in response to software

functions executed on a host processor, wherein the image buffer and the accumulation buffer are external to the graphics hardware accelerator chip.

11-12. (Cancelled)

13. (Currently Amended) The graphics system of claim 23 [[11]], wherein the texture buffer comprises one or more synchronous dynamic RAMs (SDRAMs).

14. (Currently Amended) The graphics system of claim 23 [[11]], wherein the frame buffer comprises one or more 3D-RAM memory devices.

15. (Cancelled) ~~The system of claim 1, wherein the first stream of image pixels corresponds to a single image.~~

16. (Cancelled) ~~The method of claim 7 further comprising:~~

~~blending a plurality of images by repeatedly performing (a), (b), (c) and (d).~~

17. (New) A system comprising:

an accumulation buffer;

an image buffer; and

a mixing unit configured to (a) read a first stream of image pixels corresponding to an image X_K from the image buffer, (b) read a second stream of pixels corresponding to an image A_K from the accumulation buffer, (c) blend each image pixel of the image X_K with the corresponding pixel of the image A_K based on an alpha value provided with the image pixel, and thus, generate a third stream of output pixels defining an image A_{K+1} , and (d) transfer the third stream of output pixels to the accumulation buffer;

wherein the mixing unit is further configured to perform (a), (b), (c) and (d) for each image in a sequence of images X_K , $K=0, 1, 2, \dots, N-1$, wherein N is the number of images in the sequence.

18. (New) The system of claim 17, wherein the color precision of the accumulation buffer is greater than the color precision of the image buffer.

19. (New) The system of claim 18, wherein the mixing unit includes a plurality of mixing circuits, wherein each mixing circuit operates on a corresponding color component.

20. (New) The system of claim 19, wherein the accumulation buffer resides within a texture buffer of a graphics system.

21. (New) The system of claim 21, wherein the image buffer resides within the frame buffer of a graphics system.

22. (New) The system of claim 18, wherein the color precision of the accumulation buffer is at least ΔN larger than the color precision of the image buffer, wherein ΔN is the base two logarithm of the maximum number of images to be blended into the accumulation buffer.

23. (New) A graphics system comprising:

a frame buffer;

a texture buffer;

a hardware accelerator configured (a) to read image pixels corresponding to an image X_K from the frame buffer, (b) to read pixels corresponding to an image A_K from an accumulation buffer allocated in the texture buffer, (c) to blend each of the image pixels of the image X_K with the corresponding pixel of the image A_K using an α value of the

image pixel as the blend fraction, and thus, generate output pixels defining an image A_K , and (d) to transfer the output pixels to the accumulation buffer;

wherein the hardware accelerator is further configured to perform (a), (b), (c) and (d) for each image in a sequence of images X_K , $K=0, 1, 2, \dots, N-1$, wherein N is the number of images in the sequence.

24. (New) The graphics system of claim 23, wherein the texture buffer has a configurable pixel depth precision.